

THE ASC Bulletin

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A Message from the ASC President



I write this address for the ASC Bulletin on the Saturday after Thanksgiving reflecting on all that I am thankful for. I am thankful for the ASC, the lifelong friendships that I have formed within the ASC, and I am thankful for the opportunity to serve you, the ASC Membership, as your President this next year. The year 2022 will be a year for all of us to reflect on what is important in life, what we value and what we believe builds a better future for ourselves and our world. Let's reimagine a society that is joined in a common purpose of peace and well-being for all and a people who are not divided by labels of any kind.

I want you to also reimagine Cytology and the potential for a transformation in practice that unites rather than divides and improves our product- the Pathology Report- for the patient and the patient care team, which is at the center of what's we do as Cyt(opath)ologists.

Reimagining a concept or process requires one to rethink, recreate, revise, remodel...you get the idea. What will cytology look like in 10-20 years? Do we have a say in that? There are major changes going on in medicine today that are impacting the practice of medicine in general, and the practice of pathology in particular. Are there changes in the way we practice cytology that can improve patient care? I think there are.

To reimagine what cytology can be, we must first look at where we have been. For all practical purposes, formal cytopathology practice began with Dr. George Papanicolaou who created the first cytopathology lab in the country at Cornell Medical Center. He and Dr. Babes, a Romanian

pathologist, presented their work on the use of cervical cytology to diagnose cervical cancer at a medical meeting in Michigan in 1928 [1], and Babes published this work in the French literature that same year. [2] The concept was ignored until 1941 when the landmark paper by Papanicolaou and Traut, a gynecologist at Cornell, published their work on the value of vaginal smears in the diagnosis of uterine cancer in the American Journal of Obstetrics and Gynecology [3]. Dr. Joseph Meigs at Massachusetts General Hospital (MGH) read the paper and encouraged Ruth Graham, a cytotechnologist, to study and implement the technique at MGH. She was supported by Dr. Maurice Freemont Smith, an internist, who had heard about “The Papanicolaou method” from the 1941 paper. And thus, the second cytopathology Lab in the United States was started in 1942 at the Vincent Gynecology Laboratories at MGH, which was not part of MGH anatomic pathology at this time. [4]

Over the years cytopathology services expanded to include exfoliative samples in the 1950’s. The MGH Cytology Lab merged with Anatomic Pathology Service when the Warren Building was built in 1957- so named after the famous Warren family beginning with Dr. Joseph Warren, the doctor of John and Abigail Adams, who gave his life in the Battle of Bunker Hill.

Radiologically guided FNAs started in earnest in the early 1980’s using Chiba cutting needles and collecting cells and tiny clusters into cellblocks. Superficial FNAs also took off in the United States in the early 1980’s after Sweden showed the world how pathologists could do it better. Many an American cytopathologist trekked to the FNA mecca at the Karolinska Hospital in Stockholm to study with Dr. Torsten Lowhagen, one of the fathers of FNA. I was lucky to go there in 1991. Sweden sent us Dr. Britt Marie Ljung, my FNA Godmother, who trained my mentor, Dr. Ann Thor. Dr. Michael Stanley, an active member of the ASC for many years wrote one of the first books on FNA of palpable masses with Dr. Lowhagen in 1993. [5]

In the early 2000’s improvements in core needle design, imaging and biopsy techniques led to the increased use of core needle biopsies over FNAs, subsequently leading to a virtual elimination of breast FNAs in the United States and a significant decrease in many other organ systems over the ensuing years. For example, at MGH today we only get a token FNA rinsed in Cytosol Red™ and a core biopsy for liver masses and thus no more ROSE for liver. The lack of controls for immunohistochemistry on smears and clinical trial requirements for formalin-fixed-paraffin-embedded (FFPE) tissue from tumors has also contributed to the replacement of FNAs with core biopsies.

Next generation fine needles used with EUS and EBUS such as the Acquire™ and Sharkcore™ needles have allowed intervention lists to procure both aspirated tissue and core tissue with the same needle. And cyst walls can be sampled with a micro forceps biopsy. The intersection between cytology and surgical pathology has never been greater with the biggest turf battles in the large private practices and subspecialized academic centers like MGH. Who should interpret these “core biopsies”?

This very question was addressed by the ASC Task Force on Small Tissue Samples last year. This task force was led by Dr. Michael Thrall, and it produced a white paper on the topic published in JASC last year stemming from a survey sent out to cytopathologists in academic and private practice settings. [6]. The term cellblock compatible biopsies or CBCBs was coined to define these small tissue specimens collected from FNA and/or FNB and processed as FFPE tissue. And what the survey showed is that practice patterns are all over the map, and the distribution of the CBCB to cytology versus surgical pathology (SP) was often based on specimen type. EUS and EBUS cases more likely went to cytology, particularly those with ROSE, and CT and US-guided specimens went to SP. Also, lung cores more likely than non-lung core biopsies were triaged to SP. The bottom line from the survey is that tissue procured and processed by different methods from a single target site are split between cytology and SP more than are kept together thus resulting in two pathology reports rather than in a single report.

Figure 1 shows a typical work up of a case where a single procedure had both FNA and core specimens. Both the cytology and histology tissue are worked up and reported separately yielding two pathology reports, which, more likely than not, are not released at the same time requiring the clinical team to cobble together a cohesive, integrated diagnosis. Multiply this by 4-5 biopsies in the typical EBUS procedure and you can end up with a split specimen where 5 parts of a single procedure go to cytology and 3 parts go to SP, and specimens from the same lesion are also split between the two services. For example, the direct smear for ROSE and the additional smears plus cellblock go to cytology and the “core” biopsy goes to SP. The overall conclusions of the survey were that different institutions have a variety of approaches to handling small CNB specimens and that there was no dominant approach or consensus on whether reports should be unified or split.

The potential negative consequences of splitting small biopsy specimens from cytology are not insignificant. In a recent study from MGH [7], 34% of cases had some sort of discrepancy between the reports, 16% minor such as a slight difference in diagnosis, usually related to specificity of diagnosis. and 18% major, such as different diagnoses e.g., non-malignant on cytopathology versus malignant on histopathology (or vice versa), or a report of different tumor types. Splitting cases also caused redundant use of hospital resources such as ancillary testing, which were not always be performed on the most optimal tissue.

The recent special issue of JASC on Cytopathology Education addresses the implications of specimen triage in detail looking at the advantages and disadvantages of the biopsy parts going to cytology, SP or being split between the two [8].

We are now at a crossroads today of concurrent forces affecting our practice. We have the general practice cytopathologist who may have specialty training in one area of SP but not all, but who must keep up with the increasing complexity of cancer work ups in all organ systems to address personalized medicine management, and we have the SP specialist who has organ specific expertise and a close relationship with the clinicians who treat those diseases, but who does not have experience with cytopathology and is not comfortable at all interpreting cytopathology. And then we have the Cytotechnology profession that is transforming away from a profession dominated by Pap test screening due to rise in primary HPV testing. As with other Health professional groups who have removed the “tech” from their name, the CPRC has worked for years to rebrand as a master’s level professional with a greater scope of practice under a new name. Currently, the Board of Governors of the ASCP has adopted the name of “cytologist” for the certifying exam. I prefer “Advanced Cytology Practitioner” or ACP because it is akin to nurse practitioner, or NP, the right hand of the clinician. If there is only one name from one test from a master’s program, then “specialist in cytology” or SCT is a fine name.

As we Cyt(opath)ologists stand straddling the fence between cytopathology and SP, let’s reimagine cytology. What if cytology joined forces with SP and pathology practices were specialist services or SP services only? All cytology cases are assigned to a Specialty or SP Service:

Paps/FNAs of uterus, ovaries to Gyn

BAL/PLFL/ Lung FNAs to Pulmonary

Ascites/BDB/FNAs of GI tract, Liver, Pancreas FNAs to GI

CSF to Neuro

Urines/FNAs of kidney, bladder, adrenal to GU

FNAs of LN to Heme or specialist if non-Heme neoplasia

FNAs of HN, salivary gland, thyroid to HN

FNAs of bone and soft tissue to BST

FNAs still performed by Boarded Cytopathologist with training (treat like Frozen Section service)

Would such a change eliminate cytology from pathology practice? I think not. If fact, I think such a move would elevate cytology to the level of SP and remind the non-cytopathologist and patient care team of the value of cytology in the diagnosis and management of disease.

How would such a change impact our cytotechnology force? Would the practice of pathology no longer need a specialist with expertise in (cyto)morphology? I think not. The change in how the cytology specimen is integrated into general and specialty pathology practice simply expands the need for a liaison, e.g. the ACP or SCT, between the two disciplines of cytology and SP (Figure 2).

If the above is too much of a drastic transformational change, then a compromise would be to have a standardized triage protocol across pathology laboratories where all specimen parts from one procedure are accessioned in cytology for analysis and subsequently triage to SP or a specialist as needed. The cytopathologist assesses all parts of the case and decides whether to triage the case to a specialist or keep it. The triage protocol is agreed upon in advance and can be variable between labs depending on the expertise in the department. The cytopathologist interprets the cytology and the cytopathologist or SP/specialist interprets the “Core” tissue. This protocol ensures that optimal tissue is used for ancillary testing, it eliminates redundant testing and a waste of hospital resources. RVUs go to service that works up and signs out the case or if possible, with the use of technology, the cytology CPT codes go to cytology and the SP codes go to SP if the case is split.

The end goal of either change in practice is a single Pathology Report with clear, cohesive, integrated diagnoses that can be easily interpreted by the patient care team and the patient who now has access to their reports through some form of Patient Portal.

What would the impact be from these practice changes on training the next generation of pathologists? On department FTE requirements? Operational workflow? On the role of ACP/SCT and their training and education (master's degree), new responsibilities?

CMS reimbursement? FNA service? The patient care team? The ASC? The PATIENT?

These questions will be addressed by the Reimage Cytology Task Force chaired by Amy Ly, MD. Members include: Ron Balassanian, MD, Cindy McGrath, MD, Justin Bishop, MD, Michael Thrall, MD, Ed Stelow, MD, Lisa Zhang, MD, Susan Alperstein, MS CT(ASCP), Amber Donnelly, PhD, MPH SCT(ASCP).

Let's join forces and be partners in diagnosis for optimal patient care. Reimagine Cytology!

Respectively submitted,



References:

1. Washburn FA. The Massachusetts General Hospital: Its Development, 1900-1935. Keen minds to explore the dark continents of disease. Boston: Houghton Mifflin; 2011.
2. Myers GW. History of the Massachusetts General Hospital, June, 1872 to December 1900. Keen minds to explore the dark continents of disease. Boston: Griffith-Stillings Press; 2011.
3. Papanicolaou GN, Traut HF. Diagnostic value of vaginal smears in carcinoma of uterus. Am J Obst & Gynec. 1941;42:193.
4. Wilbur DC. Cytopathology. Keen Minds to Explore the Dark Continents of Disease. Boston, Houghton Mifflin. 2011.; p. 266-79.
5. Stanley MW, Lowhagen T. Fine needle aspiration of palpable masses. Boston: Butterworth-Heinemann; 1993.
6. Thrall MJ, Vrbin C, Barkan GA, Monaco SE, Pambuccian SE, Pantanowitz L, et al. Small core needle biopsies in cytology practice: a survey of members of the American Society of Cytopathology. J Am Soc Cytopathol. 2020 Sep - Oct;9(5):310-21.
7. Bota E, Rego M, Sweeney B, Pitman MB. Consequences of Splitting Small Tissue Biopsies from Cytology Specimens. pST097, pS60. Journal of the American Society of Cytopathology. 2021;10(5).
8. Nayar R, Monaco SE. Education in Cytopathology Special Edition. Journal of the American Society of Cytopathology. 2021;10(5).

Figures 1

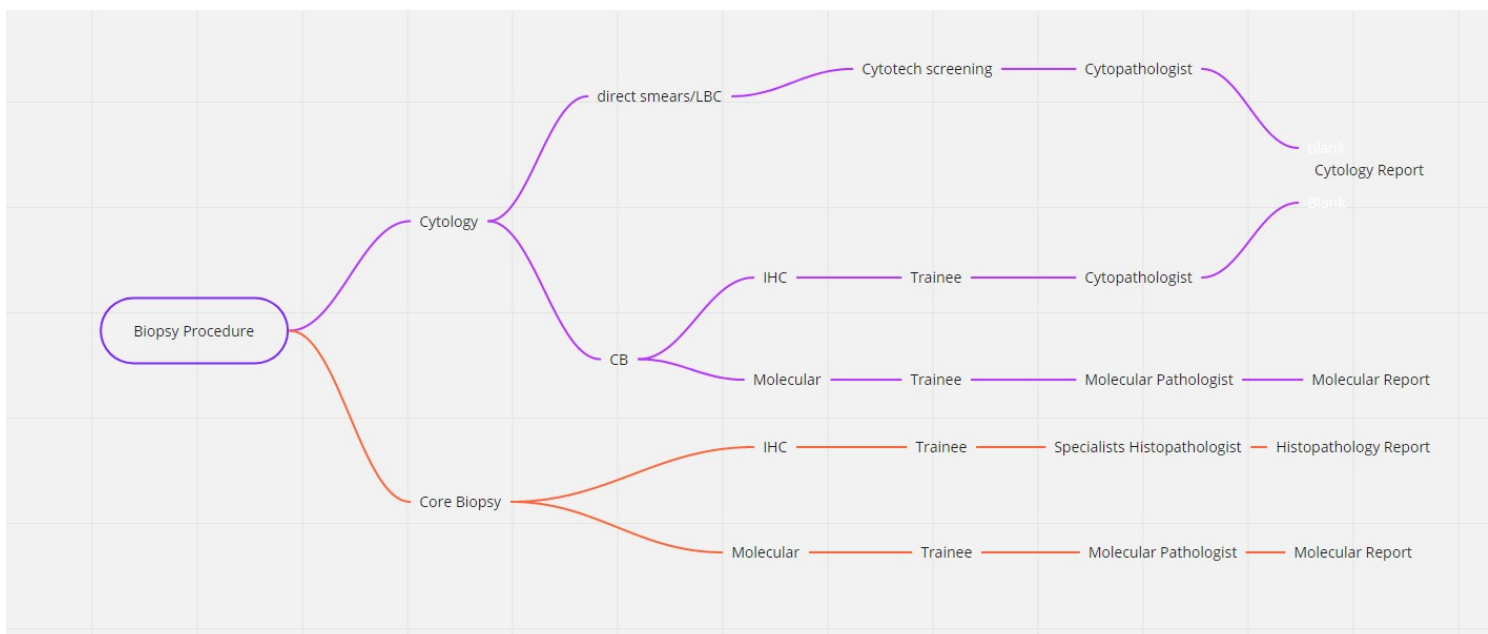
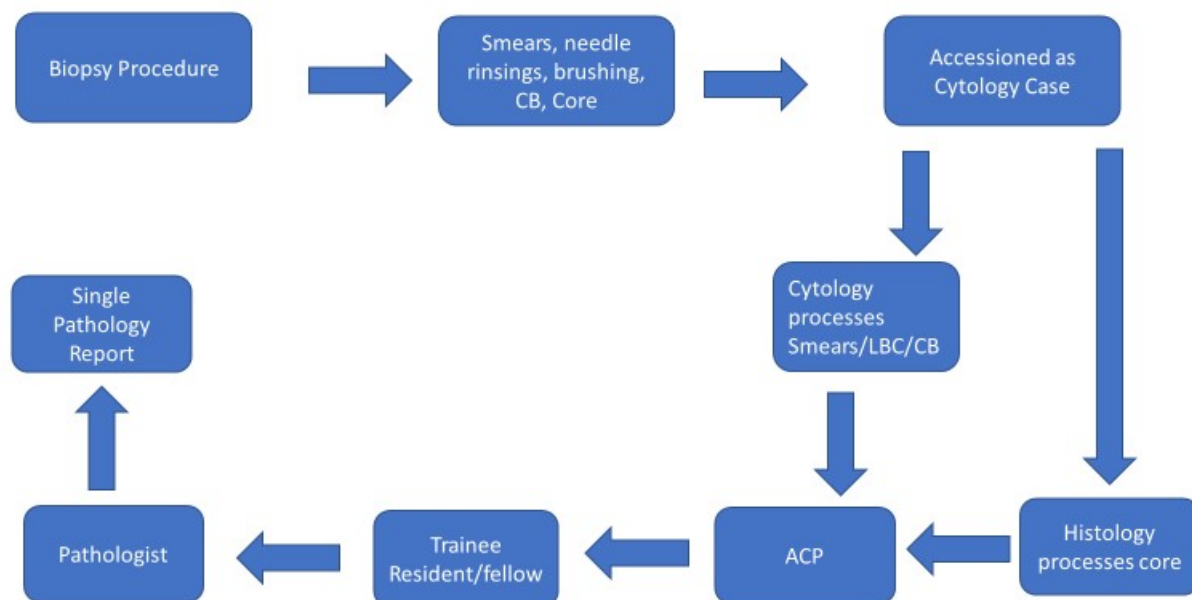


Figure 2



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ASC Podcast
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and search for
CytopathPod



AMERICAN SOCIETY OF
Cytopathology

Differential Diagnoses in Surgical Pathology: Cytopathology

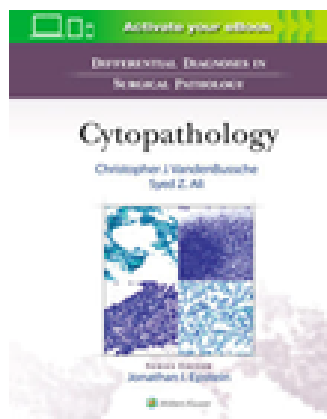
Ronald Encarnacion, CT(ASCP), The ASC Bulletin Editorial Board
Virginia Commonwealth University Health System
Richmond, Virginia

Differential Diagnoses in Surgical Pathology: Cytopathology is a new volume in a series that has also included genitourinary, gastrointestinal, pulmonary, head and neck, and breast surgical volumes. This cytopathology volume is authored by Christopher J. VandenBussche, MD, PhD, Syed Z. Ali, MBBS, MD, and edited by series editor Jonathan I. Epstein, MD. As its name implies, this 454-page reference book compares a variety of differential diagnoses in cytopathology. The information is presented in a very straightforward manner, making it ideal for quick referencing. The book is available in both hardcover and eBook format.

The book is comprised of twelve chapters, each covering a different source of cytology specimens. They include gynecologic cytology, serous effusions, cerebrospinal fluids, as well as common fine needle aspiration body sites such as thyroid, liver, and soft tissue. Each chapter is divided into subsections, which pairs a diagnosis from that body site with a common differential diagnosis. Beginning each subsection is a simple table that lists information about each diagnosis side by side. The information consists of the common age of the diagnosis, signs and symptoms, treatment, brief etiology, special studies and molecular tests, and the cytomorphologies of each diagnosis. After each table are high quality images of the cells with descriptions of each diagnosis.

Unlike other reference books, this book does not delve into the physiology of each body site or go into detail about the etiologies about the diseases it covers. The purpose of this book is to quickly compare and contrast common differential diagnoses, and this book does a great job of getting straight to the point. Each new section immediately begins with the easy-to-read, side-by-side comparison tables. The tables list all the most relevant information for each diagnosis, making it simple and fast to note the key differences between them. It is very useful for those common and tricky differential diagnoses, including metastatic adenocarcinoma versus mesothelioma in serous fluids, and benign hepatocytes versus well-differentiated hepatocellular carcinomas. There are also less common differentials discussed, such as pancreatic neuroendocrine tumor versus accessory spleen. The images provided are well representative of the diagnoses they discuss, and the inclusion of which special stains and molecular tests are effective for each diagnosis are very useful.

This book is most helpful when dealing with uncertain cases and when a quick reference guide is needed to help come to a final diagnosis. This can also be helpful as a refresher for cytology criteria, as all the key information presents itself in such a simple and effective format. This book lacks the in-depth information that could be helpful to those first starting out in cytology, but this book can prove very useful for those already in the field. With easy to read tables paired with high quality images, this book can help professionals in the field come to quicker final diagnoses, and would be a great addition to any library of cytology books.

**Differential Diagnoses in Surgical Pathology: Cytopathology**

Author(s): Syed Ali MD, Christopher J VandenBussche MD, PhD

ISBN/ISSN: 9781975113162

\$179.99



2021 ASC Annual Scientific Meeting Awards & Highlights

The ASC 69th Annual Scientific Meeting was held as a hybrid meeting, November 11th through 14th. The Meeting Program began on Thursday and ran through Sunday, with inspiring and challenging scientific sessions accompanied by a professionally and entertainingly presented Current Issue in Cytopathology, Diagnostic Cytology Seminar, Microscopic Tutorials, Workshop, Virtual Poster and Live Platform presentations, and sensational social events.

ASC Achievement Awards was a successful hybrid event! Thank you to all the award winners for outstanding recordings and Congratulations on your award. Please view each award winner's Thank You videos by clicking on their names below.



The Papanicolaou Award

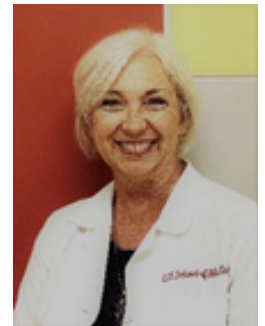
The Papanicolaou Award was established in 1958 and is the highest award given by the American Society of Cytopathology. It is presented annually to a physician or PhD member in recognition of meritorious contributions in the field of cytology.

This year the Papanicolaou Award recipient is **Eva M. Wojcik, MD** who serves as Chair of the Department of Pathology and Laboratory and serves as Medical Director of Clinical Laboratories at Loyola University Medical Center, Maywood, Illinois.

The Cytotechnologist Award for Outstanding Achievement

The Cytotechnologist Award for Outstanding Achievement is presented annually to an ASC Cytotechnologist member in recognition of meritorious service or accomplishments to the field of cytology.

This year's recipient is **Barbara McGahey Frain, MS, SCT(ASCP)CM** who holds the position of assistant clinical professor and education coordinator for Indiana University School of Cytotechnology.



The ASC President's Award



The ASC President's Award is presented annually to an ASC member. Selection of recipients is at the discretion of the current ASC President, Dr. Guliz Barkan, who chose **Sara E. Monaco, MD** as the 2021 recipient.

Dr. Monaco completed her training, including cytopathology fellowship, and stayed on the faculty for over a decade at the University of Pittsburgh Medical Center (UPMC) in Pittsburgh, PA. She is currently the System Director of Cytopathology at Geisinger Medical Center in Danville, PA, where she is also Professor of Pathology at Geisinger Commonwealth School of Medicine.

The Excellence in Education Award



The Excellence in Education Award is presented annually to a cytotechnologist or pathologist in recognition of meritorious service or accomplishment in the field of cytology education to include the education of cytotechnologists, pathology residents and/or cytopathology fellows.

The recipient of the Award is the late **Stefan E. Pambuccian, MD** who was a Professor of Pathology and Laboratory Medicine and served as Vice-Chair for Translational Research for the Department of Pathology at Loyola University Medical Center.

We were honored to have Mrs. Corina Pambuccian at The ASC Award Ceremony to accept the award on behalf of her late husband Dr. Stefan E. Pambuccian.



The International Achievement Award

The International Achievement Award is awarded to a cytopathologist or cytotechnologist who has transcended geographical boundaries and contributed significantly to cytopathology education and research. The award honors individuals with leadership roles at an international level and are respected for their collaborative and organizational excellence in promoting the profession globally.

The 2021 recipient is **Fernando Schmitt, MD, PhD, FIAC** is Professor of Pathology at the University of Porto, Director of RISE (Clinical and Translational Research Network of the Medical Faculty) and Head of Molecular Pathology at Institute of Molecular Pathology and Immunology of the University of Porto (IPATIMUP). He is widely considered a world-leading expert in cytopathology and breast cancer. He was fellow at the Karolinska Medical Hospital, Sweden, and was Professor of Pathology at the University of São Paulo (USP), Brazil and University of Toronto, Canada.



2021 ASC's Volunteer Appreciation Award



This award was created in 2018 to acknowledge the contributions of an ASC member who has demonstrated outstanding service to the mission, goals and work of the ASC during a given service year. The Awardee is selected by the ASC National Office Staff.

This year's award is presented to **Donna Armylagos, BA, CT(ASCP)**. Donna is Supervisor and later Manager at the Bioreference Houston lab, responsible for the Texas cytology operations. In 2019, Donna moved to Houston Methodist and currently is the Manager of Cytology and other AP Departments to include, AP front office administration, filing and Fish Department of Houston Methodist Hospital.



Bernard Naylor Excellence in Cytomorphology Award in memory of Dr. Bernard Naylor.

The Bernard Naylor Excellence in Cytomorphology Award addresses a morphologic constituency that is not served by current ASC awards. The Award highlights one of the most important skills in the field of cytology practice, morphologic observation.

The 2021 Award is for Fibroadenoma Versus Phyllodes Tumor: A Vexing Problem Revisited!

First Author: Tummidi Santosh, MIAC
Kanchan Kothari², Mona Agnihotri², Leena Naik³ and Prashant Sood⁴

Mangalagiri, Andhra Pradesh, India



2021 ASC Poster and Platform Award Recipients

Quality Improvement in Cytology Award

Quality Improvement in Cytology Award, established in 2019, recognizes Quality Improvement (QI) projects designed to improve quality in cytopathology practice. The award is given for those projects that demonstrate innovative and forward-thinking approaches to current Cytology practices, as well as measurable and replicable improvement.

Poster 117

Spectacular Cell Blocks: The Pull Back Technique for Producing Core Biopsy Equivalent FNA Cell Blocks

First Author: Lauren Eversmeyer, MD
Poonam Vohra, MD, Britt-Marie Ljung, MD, Ronald Balassanian, MD

University of California San Francisco
San Francisco, California



The Geno Saccomanno, MD New Frontiers in Cytology Award

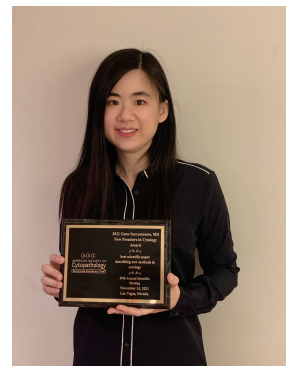
The Geno Saccomanno, MD New Frontiers in Cytology Award, established in 1993, is presented to an ASC member who is not nominated for another abstract award. The paper should contribute to a better understanding of cell biology or enhanced diagnosis and show significant innovation, good study design and potential diagnostic utility.

Platform 9

Developing a Deep Learning Approach for Label-free Isolation and Enrichment of Cancer Cells in Body Fluids for Cytological and Molecular Analysis

First Author: Yipeng Geng, MD, PhD1
Christina Chang, PhD2, Jeanette Mei, BS2, Kiran Saini, MS2, Krishna Pant, PhD2, Stephanie Huang, PhD2, Nianzhen Li, PhD2, Mahyar Salek, PhD2, Thomas Musci, MD2, Maddison (Mahdokht) Masaeli, PhD2, Jianyu Rao, MD1

University of California, Los Angeles¹, Los Angeles, California; Deepcell, Inc², Mountain View, California



The Advances in Thyroid Cytology Award



The Advances in Thyroid Cytology Award, established in 2014, recognizes the abstract presentation that best contributes to the knowledge of diagnosis and treatment of thyroid diseases using FNA and/or ancillary techniques. This award is supported by an educational grant from Thyroid Cytopathology Partners in Austin, Texas.

Platform 1

The Impact of Reflex Molecular Testing on the Management of Indeterminate Thyroid Cytology: A Single Institution Experience

First Author: Ryan Glass, MD
 Samaneh Motanagh, MD, Joshua Levy, BA, Xiaoying Liu, MD

Dartmouth Hitchcock Medical Center
 Lebanon, New Hampshire

The Cytotechnologist Scientific Presentation Award

The Cytotechnologist Scientific Presentation Award, established in 1969, is presented to the cytotechnologist or cytotechnology student enrolled in a CAAHEP-accredited Cytotechnology Program who presents the best scientific paper in cytology for either a platform or poster session.



Poster 5

Improving Professionalism for New Graduates of Cytotechnology Programs

First Author: Barbara McGahey Frain, MS, SCT(ASCP)
 Josh Howell, MAOL, SCT(ASCP), Rebecca Buckner, M(ASCP), CCRC(ACRP), Amy Young, BS, Patrick Russell, BS, MLS, Fredrik Skarstedt, BS

Indiana University School of Medicine
 Indianapolis, Indiana

The Warren R. Land, MD Resident Physician Award

The Warren R. Land, MD Resident Physician Award, established in 1978, is presented annually to recognize the resident or fellow in an approved training program who submits the best scientific paper in cytology for either a platform or a poster session.

PST 118

The Utility of TRPS1 Immunohistochemistry in Diagnosis of Breast Carcinoma in Cytology Specimens

First Author: Nalan Yurtsever, MD
 Deepika Savant, MD, Priyanka Karam, MD, Cecilia Gimenez, MD, Kasturi Das, MD, Silvat Sheikh-Fayyaz, MD, Seema Khutti, MD.

Zucker School of Medicine at Hofstra/Northwell
 Hempstead, New York



The Innovative Cytotechnologist Practice Award



The Innovative Cytotechnologist Practice Award, established in 2018, this award demonstrates programs, services or projects performed by a cytotechnologist that are creative, cost-effective and improve practice in cytopathology

Poster 119

Thionin Stain Replacement of Toluidine Blue Stain for Cytological Specimen Triage Improves Safety during the COVID-19 Pandemic

First Author: Ronald Arpin, MS, SCT(ASCP)MB

Cinzia LoBuono, MS, CT(ASCP)MB, Mary Rego, SCT(ASCP)MB, Brenda Sweeney, MS, SCT (ASCP)MB, John Beliveau, BS, Martha Pitman, MD

Massachusetts General Hospital
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Journal of the American Society of Cytopathology

CALL FOR EDITOR-IN-CHIEF

DEADLINE FOR APPLICATIONS: March 1, 2022

Elsevier is seeking applications for Editor-in-Chief of the Journal of American Society of Cytopathology (JASC).

To apply for this position, please submit a letter of intent describing your qualifications for the role and your vision for the Journal, along with your CV, by March 1, 2022 to: Lindsay Allen, Publisher, l.allen@elsevier.com

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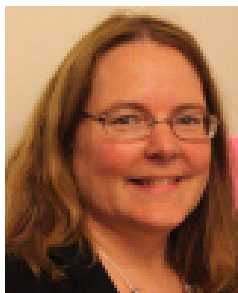


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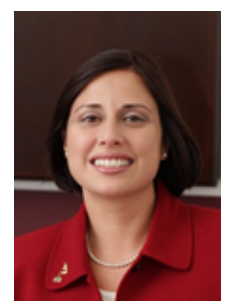
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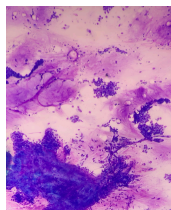


Figure 1: Small clusters of cuboidal cells float amid abundant mucoid material (Romanowsky stain, 20x).

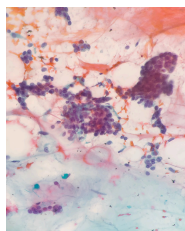


Figure 2: Cohesive small bland cells show fine chromatin and a small amount of delicate cytoplasm (Pap, 40x).

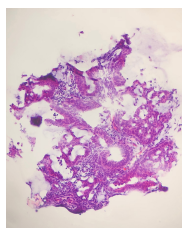


Figure 3: The entire cell block is shown. Scant cuboidal cells encircle wispy mucoid material, supported by scant spindled cells. A dark purple microcalcification is also noted (H&E, 20x).

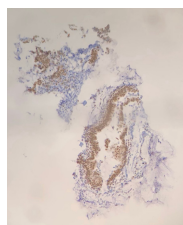


Figure 4: Cell block reveals strong nuclear and cytoplasmic staining for TLE-1 in the epithelioid cells, with focal weak staining in a few of the spindled cells (20x).

Thigh Lesion with an Unusually Prominent Epithelioid Pattern

Rachel Conrad, MD
Jack C. Montgomery VA Medical Center
Muskogee, Oklahoma

Travis Vernier, BS, Medical Student
University of Oklahoma College of Medicine
Oklahoma City, Oklahoma

Disclosure: None

Continuing Medical Education (CME): The American Society of Cytopathology is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The American Society of Cytopathology designates this enduring educational activity for a maximum of 1 *AMA PRA Category 1 credit(s)*.™ Physicians should only claim credit commensurate with the extent of their participation in the activity.

American Board of Pathology Maintenance of Certification (MOC): This product can help fulfill the CME requirements and Self-Assessment Modules (SAMs) mandated by the American Board of Pathology MOC process.

Continuing Medical Laboratory Education (CMLE): The ASC designates this activity for the indicated number of CMLE credit hours and also fulfills requirements of the ABMS to participate in the Maintenance of Certification program.

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Disclosure for Education Planners

Review the Case Study and visit the ASC Web site to take the test for Continuing Education Credit.

Clinical History

An otherwise healthy woman in her mid-twenties presented with left knee pain. MRI revealed a 5.5 x 2.8 cm oval mass in the deep soft tissue of the left thigh near the popliteal artery. Fine needle aspiration was performed.

Cytopathology Features

The cellular smears showed small cohesive clusters of bland cuboidal cells, with a less prominent component of bland spindled cells. Round to oval nuclei contained fine chromatin, and cytoplasm was scant and delicate. Mitoses and necrosis were not identified, but rare microcalcifications were observed. The background contained abundant mucoid material. The presence of TLE-1 staining suggested synovial sarcoma, but this diagnosis needed to be confirmed by fluorescence in-situ hybridization (FISH) testing for the characteristic SS18-SSX fusion. Molecular testing was attempted but was unsuccessful due to the cell block's low cellularity and abundant obscuring mucin. (For FISH testing, the minimum threshold is 20 interphase nuclei, although evaluation of additional nuclei can be helpful [1-3].) The small amount of tissue available in this case sparked a lively discussion regarding thresholds for diagnosis and minimum quantity of cells required. The case was ultimately signed out as malignant, with a comment describing the differential diagnoses and recommending clinicoradiographic correlation with additional sampling.

Careful clinical exam and whole-body PET-CT imaging failed to reveal any other lesions. The patient subsequently underwent resection of the tumor and needle tract. Grossly, the 5.5cm yellow-tan tumor appeared lobulated, well-circumscribed, and had a slightly sticky, gelatinous to mucoid texture. Microscopically, there were numerous simple glands lined by cuboidal to low columnar cells. Occasional larger cystic structures were also present, containing mucoid material. Very rare areas between the glands showed a transition to a more spindled morphology. Rare mitoses and focal necrosis were present, most of which were adjacent to the prior biopsy site. Tumor was not seen along the needle tract. Lymphovascular invasion was not identified. Immunohistochemical stains showed strong TLE-1 nuclear positivity, weak diffuse CD99 positivity, patchy CK7 and EMA positivity in epithelial cells, and positive BCL-2 in spindled cells. PAS-D highlighted mucinous secretions. Confirmatory FISH was also performed. Post-operatively, the patient recovered well and has been disease-free for three years.



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